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Serial no. 09/681,813
Filed 6/9/2001
Attorney docket no. 1043.001US1

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REMARKS

Rejection of claims under 35 USC 102

Claims 1, 5, 8, 10-11, 13-15, and 17 have been rejected under 35 USC 102(b) as being anticipated by Zloof (5,489,922). Claims 1 and 14 are independent claims, from which the remaining of the claims rejected under 35 USC 102 ultimately depend. Applicant submits that claims 1 and 14 are not anticipated by Zloof, such that the remaining of the claims rejected under 35 USC 102 are also not anticipated by Zloof for at least the substantially same reasons.

Claim 1 (and thus claims 5, 8, 10-11, and 13)

With respect first to claim 1, Applicant has amended claim 1 to better clarify the subject invention. In particular, the optical sensor has been amended such that it detects relative movement of the surface of the housing "along two axes . . . to cause a pointer on a screen of a computer to correspondingly move." Support for this amendment is found in paragraph [0017] of the patent application as filed, in which it is stated that "[t]he relative movement of an optical sensor 106 desirably causes a pointer on a screen of a computer to correspondingly move, as can be appreciated by those of ordinary skill within the art." Those of ordinary skill within the art recognize that a pointer moves on the screen of a computer along two axes (e.g., along the x and the y axes), such that there is support for the relative movement of the optical sensor 106 being detected along two axes. Indeed, as commonly recognized by those of ordinary skill within the art, a pointing device, like a mouse, trackball, etc., as noted in the background section of the detailed description, is used to move a pointer on the screen of a computer along two axes. Since the optical sensor 106 in the patent application as filed is the only sensor that is able to detect movement to cause a pointer to move on the screen of a computer, it is implicit and inherent that the sensor detects such movement along two axes.

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Applicant notes that the MPEP states that “[t]he subject matter of [a] claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement.” (MPEP sec 2163.02) The MPEP further notes that

By disclosing in a patent application a device that inherently performs a function *or has a property*, operates according to a theory or has an advantage, a patent application necessarily discloses that function, theory or advantage, even though it says nothing *explicit* concerning it. The application may later be amended to recite the function, theory or advantage without introducing prohibited new matter.

(MPEP sec. 2163.07(a) (citations omitted) (emphasis added)) Thus, it is completely proper for Applicant to amend the claims to include limitations that are not literally or explicitly described in the patent application, where such limitations are inherent to that which is being claimed.

Furthermore, the first and the second external surfaces have been amended such that each is “external to the pointing device.” Support for this amendment is also found in paragraph [0017] of the patent application as filed. This paragraph states that “the optical sensor 106 may be moved against the user’s right thumb,” where obviously the user’s right thumb is not part of the pointing device of the claimed invention.

Applicant submits that Zloof does not teach or disclose at least these two limitations of the invention of claim 1. That is, Applicant submits that there are two independent reasons why Zloof does not render claim 1 as amended non-patentable. First, Zloof does not teach or disclose detecting relative movement by the optical sensor “in two directions . . . to cause a pointer on a screen of a computer to correspondingly move.” Second, Zloof does not teach or disclose the first and the second external surfaces each being “external to the pointing device.”

With respect to the optical sensor detecting relative movement “in two directions . . . to cause a pointer on a screen of a computer to correspondingly move,” it is noted first that the optical sensor in Zloof is either the optical sensor in the housing 22 *or* the optical sensor in the housing 24, and not both. That is, the claimed invention of claim 1 specifies one housing, in which a click sensor and an optical sensor are disposed, such that only one of the housings 22 and 24 of Zloof can read on the housing of claim 1. The Examiner has selected the housing 22 to read

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on the housing of claim 1. (It is noted that with respect to claim 5, the Examiner has selected the housing 24 to read on the second housing of claim 5 – such that for this reason, too, both the housings 22 and 24 cannot in unison read on the housing of claim 1.)

However, the optical sensor in the housing 22 of Zloof only detects movement along one axis. Causing a pointer on a screen of a computer to correspondingly move along two axes is provided for in Zloof by having an additional optical sensor, in the housing 24. Therefore, Zloof cannot anticipate the invention of amended claim 1, because the optical sensor in the housing 22 (or, the optical sensor in the housing 24) cannot detect movement along two axes.

Furthermore, Zloof is not modifiable so that its optical sensor in either the housing 22 or the housing 24 can detect movement along two axes, such that Zloof cannot be modified to render the invention of amended claim 1 obvious. Modifying Zloof so that the optical sensor in one of its housings detects movement along two axes frustrates its principle of operation. The way Zloof works is that its housings each have two concentric rings, where one ring is moved over another ring to cause movement over one (radial) axis. There is no way Zloof could be modified to detect movement over two axes with such an arrangement. Furthermore, even if one of the housings of Zloof could somehow be modified so that it could detect movement over two axes, this would frustrate the intended purpose of Zloof, which uses two housings, each with its own set of rotating rings and its own optical sensor. That is, if just one of the housings of Zloof could detect movement over two axes, then there is no point of having two housings in Zloof, both of which detect movement over one axis.

With respect to the external surfaces of amended claim 1 being “each external to the pointing device,” Zloof does not teach or disclose this limitation, either. The ring 28 in Zloof is moved relative to the ring 26. In claim 1, the optical sensor is limited to detecting relative movement of a surface of the housing against an external surface. However, in Zloof, the optical sensor detects relative movement of the ring 26 relative to the ring 28 – but the ring 28 is not an external surface that is “external to the pointing device,” as to which claim 1 as amended is

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limited. Rather, the ring 28 is a surface that is part of, or internal to, the pointing device in Zloof. Therefore, Zloof does not anticipate amended claim 1. Furthermore, there is no way to modify Zloof so that the ring 26 is replaced by or becomes an external surface, such that Zloof cannot be modified to render the invention of amended claim 1 obvious.

Claim 14 (and thus claims 15 and 17)

With respect next to claim 14, Applicant has amended claim 14 to better clarify the subject invention of this claim. In particular, an optical sensor is disposed within a surface of "*only*" the first housing. Proper claim interpretation of claim 14 therefore now dictates that an optical sensor is disposed within *only* the first housing, and *not*, for instance, within both the first housing *and* the second housing. Support for this amendment is found throughout the patent application as filed. For instance, in FIG. 3 of the patent application as filed, the optical sensor 106 is disposed *only* within the housing 102, and not within the housing 104.

By comparison, Zloof has an optical sensor disposed within *each* of its housings 22 and 24. Therefore, on its face Zloof cannot anticipate the invention of amended claim 14. Furthermore, Zloof cannot be modified to have an optical sensor disposed within only one of the housings 22 and 24, such that Zloof cannot render claim 14 obvious. This is because, as has been described, each of the housings 22 detects movement along a single axis, so that together they can provide detection of movement along two axes and correspondingly cause a pointer on a screen of a computer to move both horizontally and vertically. However, if there is an optical sensor in only one of the housings 22 and 24 of Zloof, then this means that detection of movement can only be accomplished along one axis, and the pointer on a screen of a computer could only be caused to move in the horizontal or the vertical direction, and not both. Such modification of Zloof frustrates the intended purpose of Zloof, to provide a pointing device for a computer.

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Rejection of claims under 35 USC 103

Claims 2-3, 6-7, and 18-20 have been rejected under 35 USC 103(a) as being unpatentable over Zloof in view of Petrich (6,104,379). Claims 2-3 and 6-7 are dependent claims ultimately depending from claim 1, and therefore are patentable for at least the same reasons that claim 1 is patentable. With respect to claims 18-20, claim 18 is an independent claim, from which claims 19 and 20 depend. Applicant submits that claim 18, as amended, is not rendered obvious over Zloof in view of Petrich, such that claims 19 and 20 are patentable for at least the same reasons.

Applicant has amended claim 18 to better clarify its subject invention, and has also amended claims 18 and 19 to correct a typographical error. First, claim 18 has been amended to denote that the external surface is "external to the pointing device," comparable to the amendment of claim 1 as has been described. Second claims 18 and 19 have both been amended so that the "means for actuation" is properly recited as the "means for *detecting* actuation." Applicant apologizes for the omission of the word "detecting" in the patent application as filed.

Claim 18 is not taught, disclosed, or suggested by Zloof in view of Petrich, because the pointing device of Zloof in view of Petrich does not disclose a "means for detecting relative movement of the finger glove against an external surface external to the pointing device." As has been described above, the external surface of Zloof, and hence the external surface of Zloof in view of Petrich, is *part of* or *internal to* the pointing device. To wit, the external surface is the ring 26 of Zloof, against which movement of the ring 28 as caused by the user is detected. Therefore, Zloof in view of Petrich does not render claim 18 obvious.

Claims 9 and 16 have been rejected under 35 USC 103(a) as being unpatentable over Zloof in view of Russell (5,481,265). Claims 9 and 16 are dependent claims, depending from independent claims 1 and 14, respectively, such that they are patentable for at least the same reasons that claims 1 and 14 are patentable, as has been described.

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Claim 12 has been rejected under 35 USC 103(a) as being unpatentable over Zloof in view of Iwasaki (2002/0024502). Claim 12 is a dependent claim ultimately depending from claim 1. Therefore, it is also patentable for at least the same reason that claim 1 is.

Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Jim McDaniel, Applicants' Attorney, at 208-396-4095, or Mike Dryja, Applicants' Attorney, at 425-427-5094, so that such issues may be resolved as expeditiously as possible. For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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Date

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